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## Kalanchoe arborescens - a Madagascan giant

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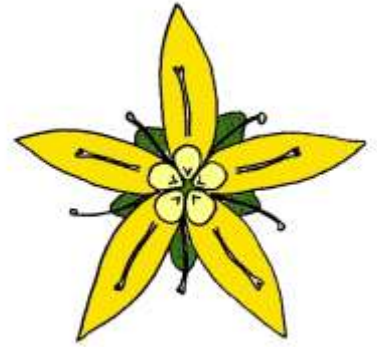
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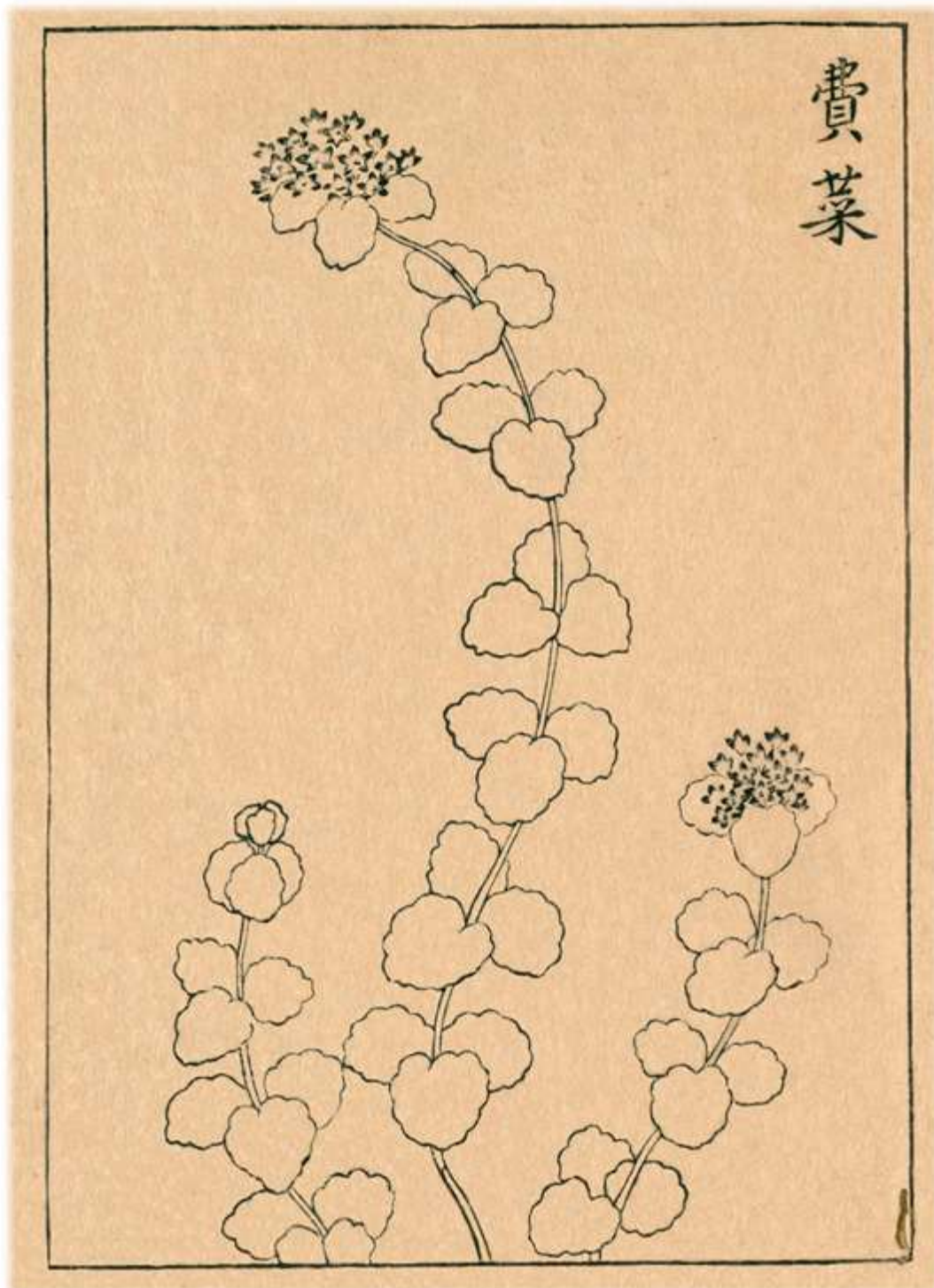
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# SEDUM SOCIETY NEWSLETTER



July 2019

Number 130





Established April 1987, now ending our 32<sup>nd</sup> year.

Subscriptions run from October to the following September. Anyone requesting to join after June, unless there is a special request, will receive his or her first *Newsletter* in October. If you do not receive your copy by the 10<sup>th</sup> of April, July or October, or the 15<sup>th</sup> January, then please write to the editor: Ray Stephenson, 8 Percy Gardens, Choppington, Northumberland, NE62 5YH, UK (or E-mail address: [sedumray@talktalk.net](mailto:sedumray@talktalk.net))

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We have all original back issues + 1-100 on DVD and 101-120 on CD available from Ray Stephenson.

## FRONT COVER

**Roy Mottram** kindly supplied: "The Diet" copy of this Japanese herbal which is sharp and crisp (see page 97). "I counted the plates, and this copy is complete with 200 plates, in 8 parts, bound here in 2 vols. I checked for another *Sedum* but none are present, so Maximowicz was basing his *S. kagamontanum* on this same plate, translating the location as Mt. Kaga and citing t.40 incorrectly. The "t.43" plate number is also wrong. It is actually t.33 of the whole work, or Vol.2 t.8. The book is bound back to front [by Western standards] as in all Japanese books of the day." **RM.**

## EDITORIAL

Ignoring the regulators, the post office hiked prices a week in advance of the set date. As a result, I needed to post overseas *Newsletters* no later than 11.00 a.m., Saturday 23<sup>rd</sup> March, or incur an extra bill. As far as inland mail is concerned, we use 2<sup>nd</sup> class or "2<sup>nd</sup> class large" which have been stock-piled before the increase.

I apologise for the quality of the "Exchange" booklets. I realised during printing that an old printer was not functioning perfectly but thought all was still readable, so made no reprint.

Now that the Northern Hemisphere is enjoying its summer, please note growth and anomalies in your collection. If you are lucky enough to spot stonecrops on your journeys or holidays – make photographic and textual notes wherever possible. When still working for a living we holidayed on the Greek island of Kefalonia in August which proved to be highly frustrating due to the fact that most plants were spent and the extreme heat near sea level was, at times,

unbearable. This year we decided to revisit, but in spring. Hopefully we can update our findings in a future *Newsletter*.

The next issue of the *Newsletter* is well planned with our first article on *Pseudosedum*, another on the contrasting forms of *Sedum rubens* in the Balearics. We have also prearranged an article on hybridizing Mexican species. It is most satisfying that after c700 pages of news and views, we still produce something new.

*Phedimus spurius* has been blacklisted as an invasive weed in Germany. I find this a little surprising as it completes very badly with mesophytic plants. Even in the wild it is only found on the most inhospitable sites where mesophytic plants fail. It would be of great interest if members from C Europe could comment on this. Margrit Bischofberger has already commented that in Switzerland *P. stoloniferus* is quicker to escape and proliferate but adds “The very last reference in the article declaring *P. spurius* as ‘invasive’ lists regions in Switzerland where *Phedimus stoloniferus* has already become a big problem for farmers! and that there is no cure for this! *Phedimus spurius* has been cultivated since 1808 in the Botanical Garden of Berlin and was offered already in 1817 by nurseries!”

Kanchi Gandhi inserted in the list of plants of the IPNI the names of *Petrosedum montanum* f. *lunigianica* (SSN 128) and *Sedum hispanicum* f. *durabilis* (SSN 129) correcting them, according to the provisions of the CODE, respectively in *Petrosedum montanum* f. *lunigianicum* and *Sedum hispanicum* f. *durable*. M.A.

A particular thanks goes to the few who offered huge numbers of taxa in the *Cuttings Exchange* knowing that many parcels would need to be made up for those new to the hobby and there would be little chance of much in return.

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## Indumentum of *Petrosedum* sp.

Ray Stephenson.



**Figure 1.** Three of the ten propagules produced glaucous leaves.

Looking back through early *Newsletters*, a goodly number of authors comment on the fact they found *Petrosedum sediforme* in two forms growing side-by-side — a glaucous form and a glabrous form. In fact, mixed colonies are more common than not. In the Trigrad gorge of S. Bulgaria I took photographs of *P. ochroleucum* with the same two contrasting indumenta. I haven't had much experience of seeing *P. rupestre* in the wild though I have contrasting forms

in cultivation. In both France and Italy, I have observed the same phenomenon with *P. montanum* but not with *P. thartii* that I've only encountered in Slovenia.

In C Spain by early June 2018, *Petrosedum amplexicaule* had already closed down for summer with no leaves present. I collected a small number of propagules from the same location in the Sierra de Ávila but only in September of the same year, when leaves started to form, did

I realise I had collected 2 different forms.

## *Kalanchoe arborescens* – a Madagascan giant

Colin C. Walker ([c.walker702@btinternet.com](mailto:c.walker702@btinternet.com))

*Kalanchoe* is a genus that has rarely featured in the pages of this *Newsletter*, so I thought I'd redress this situation with an article featuring a particularly unusual species.

*Kalanchoe* is a diverse genus of around 140 species with a wide distribution, ranging from Africa through to SE Asia (Descoings, 2003). Madagascar is a centre of diversity with at least 55 species and around 50 varieties (Boiteau & Allorge-Boiteau, 1995), many of which are choice and hence most desirable for cultivation.

Here I showcase one of these Madagascan species, *Kalanchoe arborescens* that is very distinctive and uncommon, despite having been first described as long ago as 1933. It occurs in the extreme south of Madagascar where Rauh (1998) records it as "not very frequent in the dry bush between Ampanihy, Itampolo and Tanjona Vohimena". Its name '*arborescens*' meaning 'tree-like' is very apt since this is a large shrub or small tree growing up to 5 m tall. This species is a giant in its genus and indeed it is one of the world's largest 'stone crops', far exceeding the height of the Mexican tree sedums (*Sedum dendroideum*, *S. frutescens* and *S. oxypetalum*). Allorge-Boiteau (1995) and Rauh (1998) both show photos of large specimens growing in habitat.

*Kalanchoe arborescens* is a rare species not only in habitat but also in cultivation. I first encountered it at the *Cactus & Succulent Society of America* (CSSA) mid-Eastern Convention held near Boston in 2012. A fellow speaker, Susan Amoy, exhibited a magnificent specimen in a class

for bonsai succulents (Figure 2) and I fell in love with it! Two years later in 2014 I acquired my own plant (Figure 3). I have therefore only grown it for a relatively short time but from this limited experience I would describe this plant as being relatively slow-growing. My plant is *ISI* 2001-36, a rooted cutting from the Huntington Botanic Garden plant *HBG* 73092, originally collected as seed as *Röösli & Hoffmann* 4598, on November 27<sup>th</sup> 1998 SW of Ampanihy. Currently my plant is around 38 cm tall, so it has a lot of growing to do to reach the size of the giants in habitat! The stem is only about 1 cm in diameter at the base, but this can reach 10 cm across when fully grown. It is modestly branched with a slightly roughened surface to the bark which is marked by a few vertical fissures. The terminally-arranged leaves up to 6 cm long are in whorls of three, spoon-shaped (spathulate), glabrous, glossy-green often with a red edge especially when grown in full sun. Overall it has a look reminiscent of the more familiar *Sedum dendroideum*. For such a large-growing plant the flowers are not very impressive, and my plant has yet to oblige, but I'm not holding my breath waiting for their arrival. The terminal flower spike is only about 15 cm tall and the flowers are erect or pendent, about 1 cm long with rounded (urceolate) tubes that are pale green outside and with lobes that are purple-spotted inside.

*Kalanchoe arborescens* belongs to a small group of shrubby Madagascan species that includes *K. beharensis*, *K. grandidieri* and *K. dinklagei* (syn. *K. brevisepala*) (Allorge-Boiteau, 1995; Boiteau & Allorge-Boiteau, 1995),





*K. grandidieri* and *K. dinklagei* (syn. *K. brevisepala*) (Allorge-Boiteau, 1995; Boiteau & Allorge-Boiteau, 1995). Of these, *K. dinklagei* appears to be its closest relative, from which it differs in having glabrous not tomentose stems and leaves. The flowers of *K. arborescens* are also very different, with those of *K. dinklagei* being longer, narrower and densely pilose.

For anyone interested in kalanchoes I highly recommend the book on the Madagascan species by Boiteau & Allorge-Boiteau (1995). This includes reproductions of very attractive watercolour paintings by Dolly Lunais illustrating most of the native species and varieties. The text though is in French.

Figure 2. *Kalanchoe arborescens* on the show bench in a class for bonsai succulents at the CSSA mid-Eastern Convention, USA, in 2012. Plant about 1 m tall.



**Figure 3.** My plant of *K. arborescens* in a 12.5 cm diameter pot.

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## Sedum hunting in Montenegro's lowlands.

**Pascal Raes**

Montenegro, or Chernagora as they call it, was a part of former Yugoslavia but is now an independent country. In September 2014 and 2015 I spent two weeks in the village of Lepetane, at the Bay of Kotor near the Adriatic Sea. Tivat is a nearby city and has an airport.



**Figure 4.** Lepetane marked in red.

The bay is surrounded by mountains. I did not rent a car and only roamed the lower elevations. There the winters are mild but there is a high annual rainfall of 1650 mm (65 inches). That's double the UK's 885 mm/33.7 inches.

The summer of 2014 was very wet (with lots of tasty chanterelles!) and there were countless plants of *Sedum hispanicum* in green and mostly blue forms. I even found a colony on a wet, mossy rock wall behind

a waterfall, where most 'normal' plants would not survive. Most *Sedum hispanicum* flowers had red veins, but some completely white flowers were noticed. Some plants had died in the flowering process but many survived and behaved that year as perennials.



**Figure 5.** Cristate *Petrosedum ochroleucum*.

*Sedum sexangulare* f. *montenegrinum* and *Petrosedum* were also very common on road cuts, gravel slopes and pathways, anywhere the competition from other plants was low. No plants of *Sedum acre* were noted. I took some cuttings of the *Petrosedum* and they all turned out to be *P. ochroleucum*, or *P. albescens*, as Massimo Afferni has kindly split the species. Here I found my first cristate form in the wild (Figure 5), a *Petrosedum*



**Figure 6. *Sedum dasyphyllum* on a typical vertical site.**



**Figure 7. *Sedum cepaea* in full shade.**

growing in a rock cavity, well protected from the rain. Many cristates in my

collection were lost before I understood they need protection from winter rain.

*Sedum dasyphyllum* is common, mostly in villages on vertical walls and roofs. Equally growing on walls was biennial *Sedum cepaea*, but in shadow. *Umbilicus* is another inhabitant of walls. Unfamiliar with this genus, I noticed only later that some plants had horizontal seed-heads, and others - drooping ones. It is tempting to name them, but as at least four species are growing in the Balkans, I won't.

A colony of spent annuals was found. As they had shed all their seeds, the only



way of identifying them was to take some topsoil and hope for the best. They soon germinated in my greenhouse (before winter) and flowered the following year. They had 5-partite, white flowers with a single whorl of stamens, so they were *Sedum rubens* as *S. hispanicum* and *S. eriocarpum* have a double whorl of stamens.

*Hylotelephium telephium* was represented by subspecies *maximum* with its greenish yellow flowers. Fast forward to 2015. The summer had been dry and hot and all the *Sedum hispanicum* had flowered and died, except on a very few, permanently wet places. Even many of the *Sedum sexangulare* had died. Other species seemed less affected by the amount of rainfall. No *Sempervivum* were found though the scene seemed right with lots of

limestone rocks and niches. Why *Sempervivum* only grow on higher elevations in the wild, but belong to the easiest succulents in our gardens, even at sea level, I never understood.

In gardens, flower tubs and grave yards I managed to identify *S. ×rubrotinctum*, *S. palmeri*, *S. mexicanum*, *S. dendroideum*, *S. praealtum*, *S. sarmentosum* and *Graptopetalum paraguayense*. They remained outdoors all year. Montenegro is at this moment not a member of the EU or the Shengen countries, yet it uses the euro as its currency. Be sure to have small notes and coins — some taxi drivers pretend to have no change. Buy a dog chaser on e-bay, it's cheaper than surgery. And watch out for the many snakes on hot, dry days in this still largely unspoilt country.

## Research on the name *Sedum hispanicum* L. 1755 var. *eriocarpum* (Guss.) Boiss.

**Massimo Afferni.**

### Premise

*Sedum hispanicum* L. is indicated by botanists and researchers to be a polymorphic species that is very variable in the sense that it can take on different aspects and forms still debated today and object of observation and study. It may be annual or biennial and rarely perennial (Praeger, 1921; Stephenson, 1994; 't Hart, 2003).

The variability of this species has led over time, by many authors, to give it different names but almost all synonyms such as can be seen in the online site 'International Crassulaceae Network' on the

specific page of this succulent. It should also be noted, among other things, that in the nineteenth and early twentieth century, some Italian botanists, including G. Gussone (1844) and A. Trotter (1905), found, in the Italian south, plants of *Sedum hispanicum* or variety of it (called *Sedum hispanicum* var. *eriocarpum* S. et S.) confusing it with another annual *Sedum* similar to it, i.e. *Sedum eriocarpum* Sibth. & Smith (Sibthorp & Smith, 1806; 't Hart, 2003), a plant which, however, does not grow in Italy but in the European Orient (Greece, Turkey, Cyprus), and is also very variable in its form.



Praeger (1921) in his work also indicates two annual varieties: the first having carpels sometime glabrous (*Sedum hispanicum* var. *leiocarpum* Boiss.) and the second with carpels "sometimes more or less hairy" (*Sedum hispanicum* var. *eriocarpum* Boiss.). The said author then reports that two varieties of *Sedum hispanicum*, or *Sedum hispanicum* var. *minus* Praeger and *Sedum hispanicum* var. *bithynicum* Boiss. (Syn. of *Sedum bythinicum* Boiss.) [now considered = *S. pallidum* – Ed.].

Finally, Tavormina (1995), in his article on the taxa of the Sicilian sedum, inserts, referring to the species *Sedum hispanicum*, *Sedum hispanicum* L. var. *eriocarpum* (Guss.) Boiss., stating that it is a multi-year plant with winter growth with pubescent-glandular follicles which has its habitat on a hills and mountains between 600 and 1800 m, and is typical of Sicily. But despite the research carried out on the texts indicated in the bibliography, opinion requested in this regard to Ray Stephenson (personal communication) and contacts with the same Tavormina (who does not remember), this name does not appear in other literature.

## Discussion

The problem concerning the *Sedum hispanicum* indicated by Tavormina is not due to the fact that it is perennial as its habitat is hilly/mountainous, this aspect also corroborated by other researches done

(e.g. Stephenson, 1994; Afferni, 2016), but from the fact that his name (*Sedum hispanicum* L. var. *eriocarpum* (Guss.) Boiss.) does not appear in any text except in the article of Tavormina (1995). But neither Gussone (1844)) nor Boissier (1982/83) nor, after them, Lojacono (1891) in their works indicate *Sedum hispanicum*, *Sedum eriocarpum* and *Sedum hispanicum* var. *eriocarpum* to be multiannual plants, but always annual.

Rereading however with more attention than written by Praeger (1921) on *Sedum hispanicum* var. *eriocarpum* Boiss. said author reports that this plant, "When grows on walls, it tends to produce barren shoots and to lose its annual character, thus approaching *Sedum hispanicum* var. *bithynicum* Boissier. [as also reported by Stephenson (1994)].

## Conclusion

As previously indicated, therefore, Tavormina seems to have created a new combination of the annual *Sedum eriocarpum* indicated by Gussone (1844), not the one from Sibthorp & Smith (1806), having the characteristic of pubescent-glandulose follicles, with *Sedum hispanicum* var. *eriocarpum* Boiss. not annual, but pluriannual sensu *Sedum hispanicum* var. *bithynicum* Boiss., calling it *Sedum hispanicum* L. 1755 var. *eriocarpum* (Guss.) Boiss .

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## *Hylotelephium sieboldii* (*Sedum sieboldii*) – introduction, typification, and cultivars.

A plant so common in cultivation that it is perhaps taken for granted turns out to have an interesting history and nomenclatural issues that have been largely overlooked: by **Julian Shaw**, Horticultural taxonomy, RHS.

### Discovery and early confusion.

The popularity of *Hylotelephium sieboldii* as a cultivated plant both in Japan and the West, as opposed to a plant of known wild origin, along with its very restricted natural distribution, probably accounts for the dearth of early herbarium specimens. It is still known largely from cultivated material. Indeed, for a long time it was unknown in the wild. As late as 1965 with the appearance of the English language edition of Ohwi’s *Flora of Japan* comes this illuminating comment, “Frequently cultivated as a pot plant; recently discovered in Shikoku (Shōdoshima Island, in Sanuki Prov.)” now known as Kagawa Prefecture. A related plant has also been found in some localities in Toyama Prefecture, on the Japan Sea side of Honshu and is regarded as a different taxon, *H. ettyuense* or *H. sieboldii* var. *ettyuense*. There is also another variety described from Hubei Province, mainland China, as *H. sieboldii* var. *chinense*. A visit to the Shōdoshima Island locality and

observations on the plants there was published by H. Yuasa in 1969 (*Shokubutu saisyu nyusu* [News of plant collecting] 44: 59-60, in Japanese).

This implied absence of wild collections partly explains why Fröderström (*Gen. Sedum* 1: 61-63. 1930) struggled with its identity, and was uncertain if it was distinct, treating it somewhat hesitantly (it is marked ‘?’) as a synonym of *S. alboroseum* (now *H. erythrostictum*). However, he does provide the intriguing, though unsubstantiated and frankly unlikely, comment that it had been introduced to European gardens before Thunberg’s visit to Japan in 1775, (discussed below). Siebold, who is credited with introducing this *Hylotelephium*, visited Japan from 1823 to 1828 well after Thunberg, and had to smuggle materials out due to the restrictions in force at the time.

Fröderström also provides a quote from Paul Savatier (1830-1891), a French marine

medical officer and botanist, to the effect that it had grown in a wild state in Japan before 1759 on Mt. Kanamine, Yamato Province, now Nara Prefecture on Honshu. This is a completely different locality to Shikoku cited above. This misinformation is evidently based on Savatier's 1875 book, *Botanique Japonaise. Livres Kwa-Wi, traduits du Japonais, avec l'aide de M. Saba*, which is a commentary on an earlier Japanese work cited as Yōnan, *Conf. Soo Bokf.* dated 1759, that was really a Japanese Herbal correctly entitled *Ka'i*, and is the subject of a scholarly appraisal in an appendix to this article, by Yoko Otsuki. Savatier identifies a woodcut of a plant depicted therein as *Sedum sieboldii*. Evidently his identification is based on the Japanese vernacular names listed [and his knowledge of the plant], since the description translated into French does not match *S. sieboldii* at all. [This is because the text is about the "Hisai" group of sedums, while the plate is only of *S. sieboldii*, an example of a member of that group.] Leaves shaped like *Portulaca oleracea*, and yellow flowers with narrow, pointed petals would match the Japanese *Sedum sarmentosum*, however. At the end of the paragraph he adds that 'the plant is also known with red flowers' evidently trying to reconcile the obvious differences with his own experience of genuine *S. sieboldii*. There is no possibility of hybrids since *Hylotelephium* does not hybridise with yellow-flowered groups such as *Phedimus* nor does it contain any taxa with yellow flowers. Franchet and Savatier had also published a catalogue of Japanese plants in parts between 1873 and 1879. Part 1 page 160 (4<sup>th</sup> November 1873) lists, *Sedum sieboldii*, providing the localities cited above and references to

illustrations in Japanese publications, likely leading Fröderström to a confused picture.

The earliest unambiguous collection of *Hylotelephium sieboldii* I have traced was in fact by C.P. Thunberg the noted Swedish botanist and pupil of Linnaeus, who after spending about three years (17<sup>th</sup> April 1772 – 2<sup>nd</sup> March 1775) collecting at the Cape of Good Hope (South Africa) while he learned Dutch, necessary to fulfil the post of medical doctor to the Dutch East Indies Company's operation in Japan, set sail for Java and thence to Japan where he arrived on 13<sup>th</sup> April 1775, returning to Europe in 1779. Due to the strict Japanese Edo era policy of exclusion in force at the time he was required to stay on the artificial island of Deshima of about 32 acres extent in Nagasaki harbour. A high palisade surrounded it and a guarded bridge was the only access to the mainland. After about six months he managed to obtain permission to visit the adjacent mainland and collect plants but always with several Japanese 'minders'. Eventually he was allowed to accompany the annual embassy to the Emperor's court in Edo, now Tokyo. He relates that during the return journey in 1776 he visited a botanical garden in Osaka that had cultivated plants for sale. Needless to say, he purchased as many as possible and returned with them to Deshima. This may have been the source of his *H. sieboldii* that appears unnamed in his *Flora Japonica* (1784, page 350) under *Plantae Obscurae* as "2. *Sedum* foliis subrotundis crenatis." This record is supported by a pressed specimen later determined as *Sedum sieboldii* by Maximovicz (originally labelled "*Sedum*" only by Thunberg) in the part of Thunberg's herbarium termed "*Plantae obscurae*", that still exists at Uppsala (Dr Mats Hjertson,



pers. com. Feb 2019; Juel, *Plantae Thunbergianae*: 41, 183. 1918).

### Introduction and naming.

*Hylotelephium sieboldii*, then known as *Sedum sieboldii*, was introduced to cultivation in Britain from Japan in 1838 (probably via Europe from Siebold's plants; it was ten years after his return from Japan) by the Henderson's family run nursery at Pine Apple Place, Edgware Road in London. It appears amongst the Notices of New and Rare plants in *Paxton's Magazine of Botany*, (5: 187. 1838) as follows: "*Sedum sieboldii*. A Japanese species of some interest, and apparently perfectly hardy; its dense clusters of small pink blossoms, with which the plant is most profusely furnished, are exhibiting themselves at this nursery, and remain expanded a considerable time". While the description above does not provide a validating publication for the name, it does reassure that the plant was the same as we know today. According to Stearn (TL-1: 352), twelve monthly parts made up a volume of *Paxton's Magazine* and each was issued near the first of the month, with garden operations described near the end of each part, making dating of each part easy.

Hence Paxton's item was published about a year before the usually cited 'earliest mention' in Robert Sweet's *Hortus Britannicus*, a catalogue of all plants known to be in cultivation at the time. The third edition was edited by George Don (1798-1856), a botanist noted for his accuracy, and was published late in 1839. The name *Sedum sieboldii* hort., appeared on page 270, with the puzzling annotation that the flowers were yellow, a point noted by eagle-eyed Roy Mottram while reviewing an earlier draft of this article. While this is

probably an error, it does raise the possibility that there was some misapplication of the name in horticulture to a species other than the one we know by that name today. Hence, if this reference is used, it may be wise to attribute the name to Hooker rather than Sweet as is usually seen (as *S. sieboldii* Sweet or Sweet ex Hooker) since it may in this instance have applied to a different plant. In any case the actual author of this new name in the third edition of *Hortus Britannicus* should be G. Don as Robert Sweet had died in 1835, four years before it was published in late 1839, and three years before *Sedum sieboldii* was introduced, so he could not be responsible for the name. However, in view of Paxton's earlier publication as *nomen subnudum*, and Hooker's indirect quote from Paxton's *Magazine of Botany* in referencing its introduction by Henderson, perhaps we should be using *S. sieboldii* Paxton ex Hook.

Meanwhile in Europe the plant was widely distributed. A St. Petersburg seed list for December 1840 includes it as *Sedum sieboldii*, and Salm-Dyck, a German botanist, in his garden list (*Index plantarum succulentum in horto Dyckensi cultarum. Anno 184x: 65. 1843*) also uses the same spelling, but it is absent from the 1834 edition, consistent with the 1838 date of introduction to Britain. Roy Mottram suggested that *S. sieboldtii* derived from an intentional Latinisation to sieboldtius, creating the epithet *sieboldtii*.

A record at Kew indicates that it was flowering at Cobham Park, Surrey, in October 1851, while a specimen in the London Natural History Museum records it flowering in Venice, Italy in 1871. The December seed list of St. Petersburg

Botanic Gardens also offers seed as *S. sieboldii*, and on page 51, Eduard Regel (1815-1892) then Director of the garden wrote a Latin description providing the first validating publication of the name. Russian Crassulaceae specialist Vjačeslav Byalt carefully investigated Regel's specimens in the St. Petersburg herbarium (LE, now Komarov Botanical Institute) was able to designate a lectotype "65. 10 ex horto bot. Petropolitano *Sedum sieboldii* hort. V. vv. Regel." (Byalt. 1996. *Botanicheskii Zhurnal* (Moscow) 81: 59-61.) A short note in *Gartenflora* (of which Regel was editor) for July 1857 comments on *S. sieboldii* flowering in the St. Petersburg garden and describes it as an ornamental.

Somehow publication of the name by Regel had gone unnoticed and *Sedum sieboldii* was superfluously redescribed by Hooker in the *Botanical Magazine* (89: t.5358. 1863), which colour plate has since been designated as the "iconotype", a term sometimes used when an illustration is chosen as a lectotype (Eggli, *Illustr. Handbk Succ. Pl.: Crassulac.*: 138. 2005). In March 2011, V. Byalt annotated several herbarium sheets at Kew. These specimens include collections made by a Kew gardener, Richard Oldham (1837-1864), of plants cultivated in Japan (Nagasaki and Yedo) in 1861-62, that are date stamped "Herbarium Hookerianum 1867". Possibly these Oldham collections may not have arrived in time to have been seen by Hooker as he prepared his description published in 1863. A sheet of cultivated material grown in Cobham, Surrey, dated Oct 1851 would have been seen by Hooker in preparing the validating publication.

### The Variegated clone.

This same year, 1863, saw the first illustration of a variegated plant in the Belgian horticultural magazine, *L'Illustration Horticole* (10: t.373) edited by the well-known cactus specialist, Charles Lemaire (1800-1871) at Ghent while working for Ambroise Verschaffelt. It can be viewed at:

<https://www.biodiversitylibrary.org/page/6166736#page/148/mode/1up>

Lemaire states that *S. sieboldii* was introduced to cultivation from Japan by Philipp Franz von Siebold, a Bavarian-born doctor and biologist for whom it is named, sometime after he returned to Europe in 1830 and took up residence in Leiden. It was said he released the variegated plant commercially in 1863. The accompanying colour plate (Figure 8) is from *New and rare beautiful-leaved plants: containing illustrations and descriptions of the most ornamental-foliaged plants not hitherto noticed in any work on the subject* by James Shirley Hibberd, a horticultural journalist. (London: Bell and Daldy, 1870). The plate is inserted just before the description of "*Sedum sieboldii* Medio-Variegatum". The notes in the RHS Library catalogue state that according to Desmond, this work was first published in eighteen-shilling parts during 1868-1869. The preface is dated 30<sup>th</sup> September 1869. Most of the plates are copied, with different lettering (and the elimination of lithoprinters' names) from the second series of the Naudin and Rothschild work, *Les plantes à feuillage coloré* (1867-70). Yet no attribution to this work appears in Hibberd's text. In this instance the plate bears a striking similarity (it is a mirror image) to that appearing in *L'Illustration*



Figure 8. 1870 depiction.

*Horticole* cited above. It seems that the Naudin and Rothschild work copied it from the original 1863 plate.

By 1878 the plant was well known in Britain as evidenced by its inclusion in a serialised item on cultivated *Sedum* in



*Gardeners' Chronicle* (1879, 2 [vol. 10]: 591, 9<sup>th</sup> November) that recommended greenhouse cultivation in a hanging basket and noted the existence of a variegated variety that “is even more tender when grown in the open.”

### Cultivar names.

Before I got side-tracked by the botanical intrigue this note was intended to be about cultivar names for *Hyotelephium sieboldii*. The earliest cultivars to be distinguished were variegated plants. And the earliest name published in the West was that accompanying the illustration in *L'Illustration Horticole* 10: t. 373 (1863) var. *Foliis Medio-variegatis*, which would now be treated as a cultivar epithet. It applies to a plant with leaves that are yellow in the centre and green towards the margins on either side. The relative width of the green stripes and yellow centre is very variable and seems to depend partly on growing conditions. This is the same plant commonly seen in cultivation today, but the name has been adapted often appearing as 'Mediovariegatum' or 'Medio-variegatum'.

Regarding the adoption of Latin cultivar epithets, the ICNCP Art. 21.6 Ex. 13. (2016) provides the following guidance. *Weigela floribunda foliis purpureis* published by Carrière in 1921, becomes the cultivar name, *Weigela floribunda* 'Foliis Purpureis'. Following this precedent, the name for this variegated *Hyotelephium* would become, *Hyotelephium sieboldii* 'Foliis Medio-variegatis'. There is no provision under the ICNCP to modify this epithet to read 'Mediovariegatum' or anything else.

The very next year, 1864, saw two more names added, both of which were for plants

awarded by the RHS: 'Medio-pictum' (FCC, Herbst 1864); 'Medio-variegatum' (FCC, Salter 1864); and the following year, f. *variegatum* (1865). In view of the short time elapsing between the awards and when this plant became available one strongly suspects that only one clone was involved to which the different names all apply. The perceived differences probably being due to differences in cultivation, especially light intensity. In fact, exactly how 'Medio-pictum' differed from 'Medio-variegatum' remains unclear, but the 1992 RHS New Dictionary (2: 616) describes two clones: 'Medio-pictum' - 'leaves yellow with white centre' and 'Variegatum' - 'leaves glaucous blue, marbled cream', which differences may simply be due to cultivation conditions.

There are all sorts of variations on these names. For example, Jacobsen, *Handbk Succ. Pl.* 2: 755 (1960), '*S. sieboldii* var. *variegatis* Hort. Leaves with yellowish-white spots', becomes in the later *Lexicon of Succ. Pl.* (1974: 354) “cv. Variegatum. Leaves with yellowish-white blotches.” Of the many works that illustrate what appears to be the sole variegated clone, very few use the then earliest available name. An exception is Sajeva & Costanzo (1974) *Succulents the illustrated dictionary*: 205, which depicts a plant called 'Foliis Medio-variegatis' with leaves glaucous green with a wide central band (variously disrupted) of creamy yellow and a thin red margin. However, all this activity in Europe overlooked ...

### Earlier Japanese names

A vernacular name Misebaya for the typical non-variegated *Hyotelephium sieboldii* first appeared during the Edo Period (1603-1868) in *Shokin-ban'eki-shū* in 1717.

There was a custom in the Edo Period of deriving cultivar epithets from well-known poems and other literary works; the name *Misebaya* is an example of this practice. Literally meaning ‘to whom shall I show these leaves?’ The poetical name *Misebaya* indicates that the plant in question is unusual in some respect, to be valued and displayed. By the 1820s, however, we find *Misebaya* used as a vernacular name for typical, non-variegated *H. sieboldii*. To this day, *Misebaya* was and is applied to *H. sieboldii* regardless of whether it is plain-leaved or variegated. It is only ever applied to *H. sieboldii* and not to other *Hylotelephium* or *Sedum* species, the generic vernacular name of which is *Benkei-so*. However, Professor Takayuki Tanaka has suggested that *Misebaya* may originally have referred only to the variegated plant and thus have been a prototypical cultivar epithet. It is worth bearing in mind that, at first, only the variegated ornamental may have been at all widely known and grown, as in the wild, *H. sieboldii* is rare and highly localised in distribution.

Another vernacular name for this species is *Tama-no-o*, which means ‘string of gems’, a reference to the shape and jade-like appearance of the leaves and their arrangement on the stem, which appeared in *Koryū-ikebana-hyakubinzū* Vol. 4 in 1778. Context tells us that this was a vernacular name for the typical plant. Odd though it may seem to Westerners, to learned Edo Japanese, the name ‘to whom shall I show these leaves?’ would have indicated value and uniqueness more than the name ‘string of gems’.

In 1829, one of the most important printed works on Japanese horticulture was

published. *Sōmoku-nishikiba-shū* is an illustrated encyclopaedia in seven volumes of the variegated cultivars that were then so important to collectors. It is written by one of them, Tadatōshi Mizuno, a highly educated and botanically astute, high-ranking samurai (samurai was equivalent nobility to an English Lord) whose social position afforded him access to the most prized plants, among them, those grown by the shogun (Head of state). In the volume of this work that is titled *Okan* (an appendix of descriptions), Mizuno states that there is a *Misebaya* that is *nakafu* that is a cultivar of *Hylotelephium sieboldii* with leaves that are *nakafu*, meaning ‘with a central zone of variegation’. The pages of this volume are unnumbered, and the relevant text is in columns 7 and 8 from the left margin (Japanese is read from right to left, so the text starts at column 8) (See Figure 9). The text reads: ‘Leaves with variegated centres are called *nakafu*, also *nakaoshihe*. In such plants, the centre of the leaf is paler than the rest. [There are] *nakafu* of [*Hylotelephium erythrostictum*, *Hoya carnos*a and *Hylotelephium sieboldii*], these are very rare.’

Our research shows that just one clone of this kind was known in Japan, and that continues to be the case. Therefore, as far as *Hylotelephium sieboldii* is concerned, *nakafu* is not a group or *gei* designation, but applied to only to this solitary cultivar. There is no doubt that the ‘Mediovariegatum’ in Japanese and Western cultivation today is identical to the plant introduced from Japan by Siebold and described by Lemaire in 1863, and that this is the same as Samurai Mizuno’s *Misebaya-nakafu* (1829). Note that *foliis-*

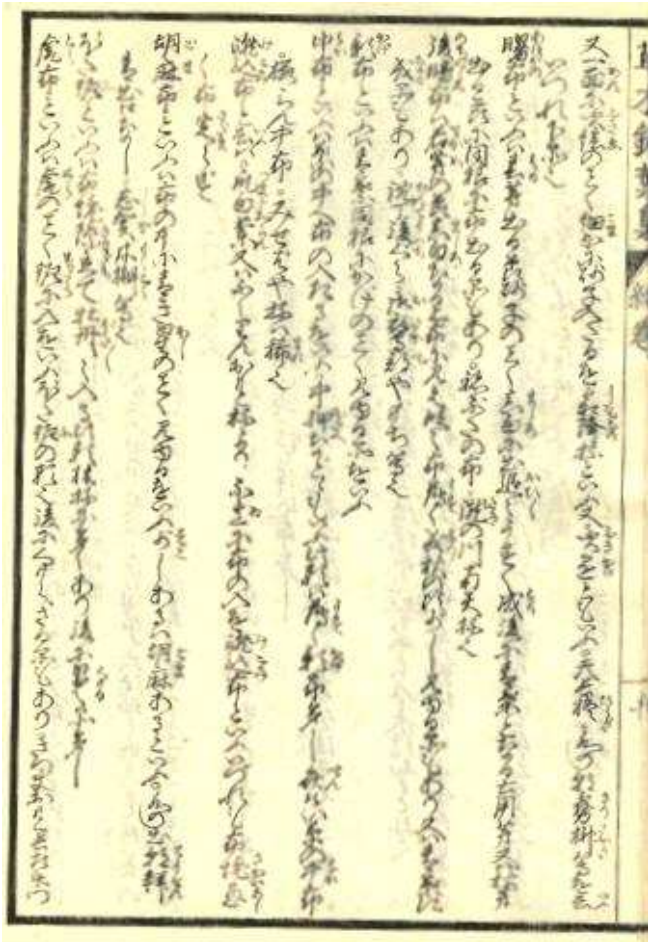


Figure 9.

*medio-variegatis* and 'Mediovariegatum' mean the exact same thing as *nakafu*. Whether Lemaire knew this, we cannot tell, but it is likely that Siebold, well-versed in Japanese, would have been aware of the native name of one of his most valued new acquisitions.

ICNCP Articles 21.20 and 21.21 (9<sup>th</sup> ed., 2016), require that the vernacular name of a genus or the part that refers to the genus should be removed from a cultivar epithet, whereas the vernacular name of the species to which the cultivar is attributed may be retained. That would result in the form 'Misebaya-nakafu', since *Misebaya* refers uniquely to *H. sieboldii*. Thus, there is an earlier Japanese name for this cultivar that was established in a well-known printed source some 34 years before it was styled

*foliis medio-variegatis* or later still 'Mediovariegatum'. On the grounds of priority and because of its unambiguous application it is argued that the Japanese cultivar epithet be adopted. Hence the 'Misebaya-nakafu', as originally published by Samurai Mizuno in 1829 in one of the great works of traditional Japanese horticulture is the correct cultivar epithet for the variegated clone of *H. sieboldii*.

### Other Cultivars.

Interestingly Hirose & Yokoi, *Variegated plants in color* (1998: 260) shows a colour image of a then unnamed cultivar in Japan, with the reverse pattern of variegation, a green centred leaf with white to pale yellow margin. More recently named cultivars include:

'**Dragon**' is a cultivar marketed in the last year or so by Thompson & Morgan of Ipswich. It originated in Japan and has glaucous green leaves with a narrow wine-red edge.

'**October Daphne**' appears to be a cultivar name for a form of *H. sieboldii* that produces a thin shoot from the axillary bud at the base of each leaf. As the leaves are usually arranged in whorls of three this makes for an interesting effect, with three thin, symmetrically arranged leaf bearing branches from each whorl along most of the stem length.

### Acknowledgements.

Piecing together this kind of story is only accomplished with the help of many other researchers. For much generous help with earlier Japanese names, I am very grateful to the following: Yoko Otsuki, FLS, Oxford; Professor Emeritus Dr Takayuki Tanaka of Tokai University; Professor Emeritus Dr Takashi Hosoki of Shimane



University; Dr Kōichirō Aoki, Head of the City Forestry Research Centre; Dr Dai Hamazaki, researcher and author; Dr Mats Hjertson, Curator (vascular plants), Uppsala University Herbarium, Dr

Vjačeslav Byalt, Russian Academy of Sciences; Rafael Govaerts, Senior editor WCSP, Kew; and Roy Mottram, author and researcher, UK, for kindly reviewing an earlier draft and suggesting improvements.

## The puzzle of *Hylotelephium sieboldii* solved.

*Botanique Japonaise: Livres Kwa-Wi* (Paris, 1875) is a translation by [Paul Amedée] Ludovic Savatier and M. Saba of a work that Savatier calls 'Kwa-Wi'; he gives the name of its author as 'Yonan Si'. Savatier's transliteration of Japanese was idiosyncratic, to put it kindly. Transliterated into Roman characters the modern way, the actual title of this work is *Kai*. It is a multi-volume, multi-authored, illustrated encyclopaedia of Japanese plants. The first volume was compiled by Yōnan Shimada (Savatier's 'Yonan Si') and published in 1759. There follows a scholarly response from **Yoko Otsuki** on the Japanese herbal book translated into French that Roy Mottram alerted us to when preparing the previous paper.

The image Figure 10 represents *Sedum sieboldii*. The text also fits this species except in saying that the flowers are *tan'ō* - pale yellow. Translated as 'jaune clair' by Savatier, it was this anomaly that prompted your query. The names that Yōnan gives for this plant are - Hisai (費菜), Misebaya and Tama-no-o. He treats Hisai (費菜) as the main name and the other two as subordinate to, and synonymous with it. This name Hisai is the cause of the trouble. It is the Chinese name for *Sedum* [*Phedimus*] *aizoon*, which, of course, is indeed yellow-flowered.

The reason for this muddle is an academic practice of traditional Japanese herbalists. For many of them, the great model was China. They would try to identify Japan's native plants by relating or comparing them to Chinese flora, which was seen as the classical or canonical corpus. In much the same way, Roman botanists interpreted and adapted the Greeks, and Renaissance botanists interpreted and adapted the Greeks and the

Romans. In all these cases, misidentifications – call them Chinese whispers - were common.

Here, Yōnan is giving an account of *Sedum sieboldii*, but he is conflating it with *S. aizoon*. I imagine he did this because the latter was familiar from China's medicinal flora, whereas the former (*S. sieboldii*) appears to have been little-known in Japan at this stage, although native. Probably, Yōnan's idea in lumping them was that the two had the same alleged properties. But it is also possible that he regarded them as one and the same, broad species.

Now, Yōnan's description of the plant conforms to *S. sieboldii* in all respects apart from his statement that the flowers are pale yellow. However, he also says that, in some plants, *usu no beni no hana*, meaning 'the flowers [are] pale crimson'. To the Japanese, this colour, *usu beni*, is a pale purple-pink or very light magenta. It does not mean *rouge* – red – as Savatier and Saba translated it. *Usu beni* accurately describes the flowers of *Sedum sieboldii*.

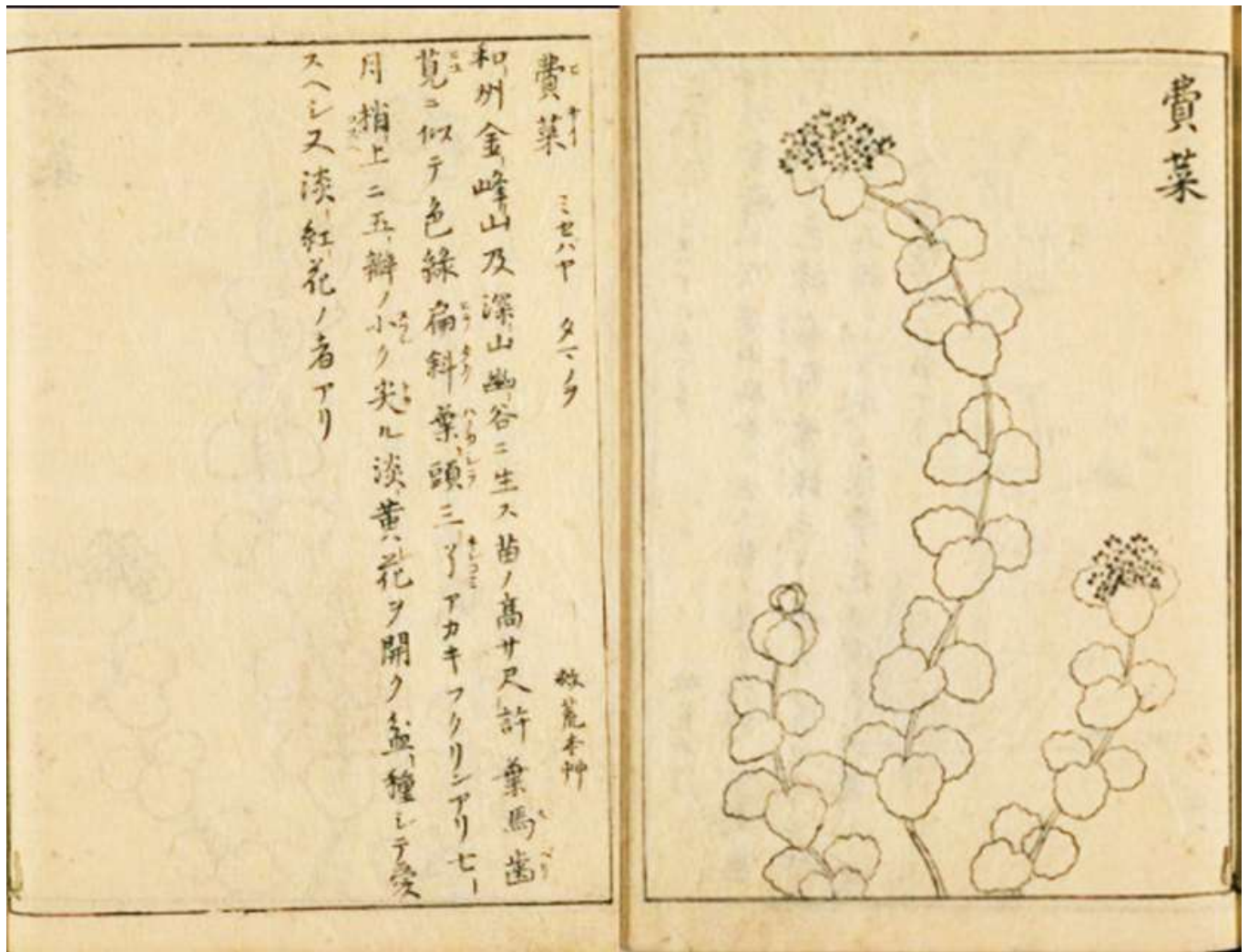


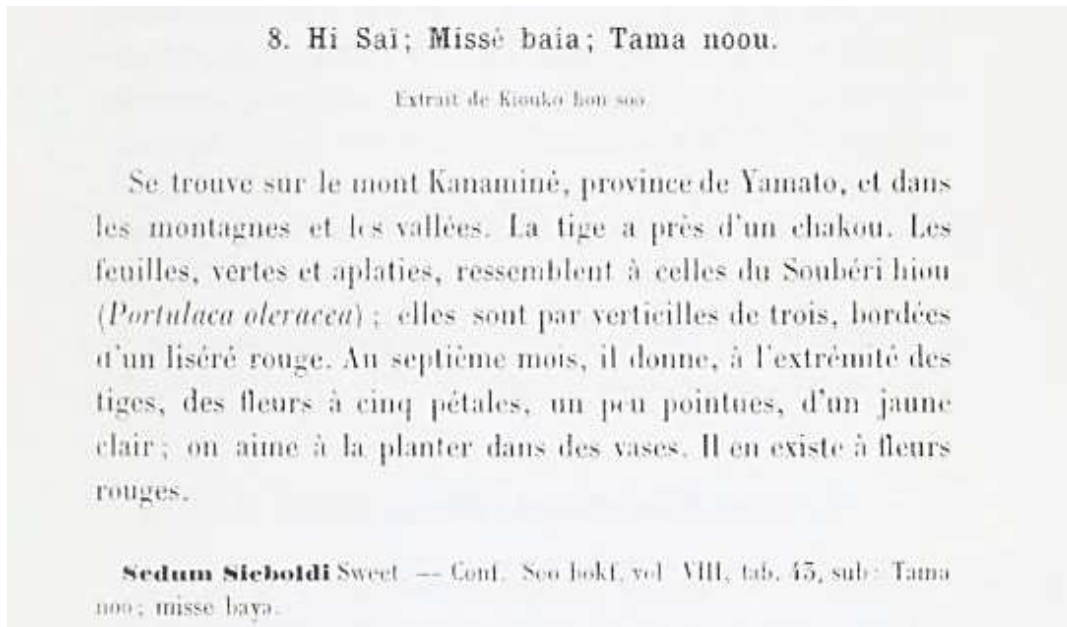
Figure 10. Yōnan Shimada (1759), *Kai* (description and image of Hisai/Misebaya/Tama-no-o).

As I mentioned above, Hisai (費菜), which is effectively Yōnan's chapter heading, is the traditional Chinese name for *Sedum aizoon* (presumably, it would have been thought applicable to the very similar *S. kamtschaticum*, too). Subsequently, these two species became known by the Japanese names Hosoba-no-kirin-sō and Kirin-sō respectively.

Apart from this passage in Yōnan, no such yellow-flowered species appears to have been confused with *S. sieboldii* in Japan's vernacular tradition. The Japanese names that Yōnan gives for this plant are the two that I've already communicated to

you, namely Misebaya and Tama-no-o (transliterated by Savatier and Saba as 'Misse baia' and 'Tama noou'). These names, as explained before, apply strictly to *Sedum sieboldii*. We have not found them used for other *Sedum* species.

To sum up, Yōnan in *Kai* (1759) describes a plant that is evidently *Sedum sieboldii* apart from his statement that its flowers are pale yellow (or pale purple-pink in some plants). The illustration is of *S. sieboldii*. Two of the names that he gives to *Sedum aizoon* come from the Chinese herbal tradition. Yōnan, it appears, wished



**Figure 11. L. Savatier (1875), *Botanique Japonaise: Livres Kwa-Wi* (p.28).**

to identify the subject of this chapter with *S. aizoon* (hence Chinese name and yellow flowers). However, the image and Japanese names pertain to *S. sieboldii* and so does all of the description apart from the mention of yellow flowers, which is in any case offset by the mention of pale purple-pink flowers. If Yōnan was trying to combine accounts of two species, he made a poor job of it: this account, overwhelmingly, favours *Sedum sieboldii*. As a treatment of *S. sieboldii*, this

chapter is interesting in describing a plain-leaved form at a fairly early date, and in giving a distribution for it that differs from the very localised one mentioned by Ohwi. Many of us suspect that *S. sieboldii* was more widespread in earlier times and that it may have been collected to the point of extinction – perhaps, we might now dare to speculate, because someone had identified it with medicinal Hisai.

### **Nomenclatural Summary by Roy Mottram.**

*Hylotelephium sieboldii* (Regel) H.Ohba, Bot Mag. (Tokyo) 90(1017): 52. 1977.

Basionym: *Sedum sieboldii* Regel, Index Seminum hort. Petropol. 1856: 51.

Synonym: *Sedum sieboldii* G. Don ex Hooker, Bot Mag 89: t5358. 1863. Nom. nud.

*Sedum sieboldii* hort nom. Nud., Slam-Dyck, *Index plantarum succulentum in horto Dyckensi cultarum. Anno 184x*: 65. 1843 [but this name was created 2 years earlier by Fisch & al. (1841) which thus has priority.]

#### **var. *sieboldii***

Synonym: *Sedum sieboldii* var. *erectum* Makino, Bot. Mag. (Tokyo) 15: 144. 1901.

**var. *chinense*** H.Ohba, J. Jap. Bot. 67(4): 199. 1992.

**var. *ettyuense*** (Tomida) H.Ohba, J. Jap. Bot. 56(6): 186. 1981.

Basionym: *Sedum ettyuense* Tomida, J. Jap. Bot. 48(5): 140. 1973.

Synonym: *Hylotelephium ettyuense* (Tomida) H.Ohba, Bot. Mag. (Tokyo) 90(1017): 50. 1977.



## *Hylotelephium sieboldii* – miscellany

**Ray Stephenson** adds some notes on horticulture and subspecies.



**Figure 12.** Plant in cultivation in the 1980s purporting to be *Sedum kagamontanum*.

Although the taxonomic mysteries of *Hylotelephium sieboldii* have been well and truly solved by the team responsible for the previous papers, one horticultural mystery remains unsolved. Last season I placed a well-grown pot of this species on a raised bed and before retiring each night I inspected it after noticing leaf-nibbles. Every evening over a period of a month or so I removed slugs from the plant – sometimes as many as 8 per evening. No other adjacent plants seemed to attract slugs like this species. I have another plant which I grow on top of a Victorian chimney pot and ‘sherpa’ slugs are attracted to it even though it is more than a metre above a pavement.

I first encountered both the normal and variegated forms as a child, invariably grown as an indoor window-sill plant. I have grown both forms outdoors for more than half a century and can say without fear

of contradiction that they are both fully hardy. Why then, over the years have growers said to me (especially of the variegated form) “Winter killed it”. I think the far more likely scenario is that it has been the victim of molluscs.

Interestingly, the variegated form reverts very easily and if non-variegated shoots are not removed, they quickly outgrow the variegated growth. Indoor grown plants are a lot bluer and less compact than those battling with the elements. Outdoor plants tend to tinge red on the leaf extremities, a feature not duplicated by indoor plants. Any stems removed root very quickly – it is extremely easy to propagate. Its most attractive feature is that it is a very late flowerer – often into December when the reddening foliage adds to the attraction (Figure 13).

In 1973, Tomida described a new species of *Sedum* – *S. ettyuense* from the

Prefecture of Tomaya (Honshu – near the N-facing coast opposite Tokyo). It looked like a strong form of *Hylotelephium sieboldii*. It was distributed by a Dutch nursery as *Sedum kagamontanum* (Figure 12) and was an excellent match for Toyama's photographs – highly floriferous with large almost spheroid inflorescences. My plant disappeared one winter though I do not suspect the weather as the guilty factor.

Makino's *Newly revised illustrated flora of Japan* (2000) ignored Tomida's

*Sedum ettyuense* but Eggli *et al* in *Illustrated handbook of succulent plants - Crassulaceae* (2001) tentatively placed *S. kagamontanum* as a synonym of *Hylotelephium sieboldii* var. *ettyuense*. They also listed *H. sieboldii* var. *chinense* as the name suggests hailing from Hubei in China – a very disjunct habitat!

#### REFERENCE

Tomida, 1973. A new *Sedum* from Pref. Toyama (*Sedum ettyuense*) 138-141 & plate 3 now available on line.

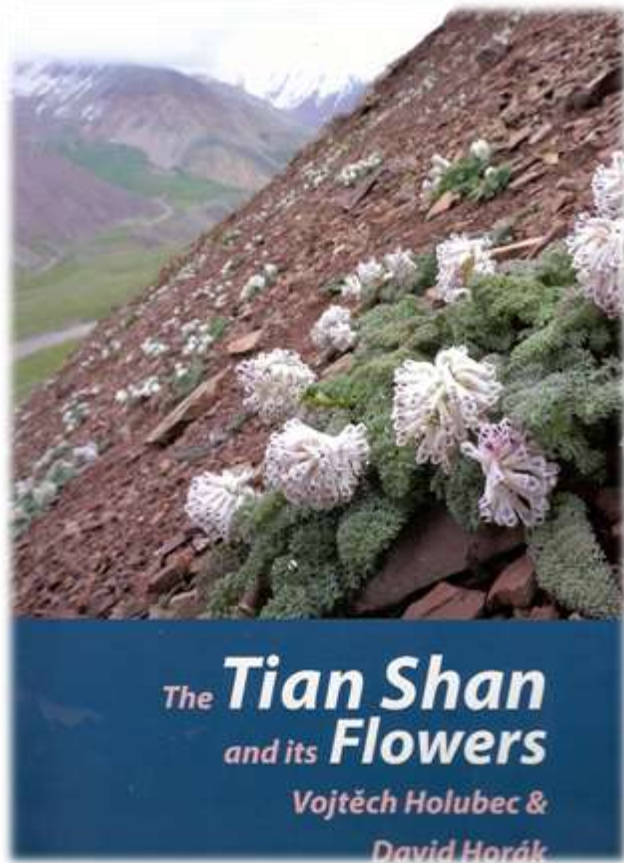


Figure 13. *Hylotelephium telephium* December 2<sup>nd</sup>. If winter starts in a mild way, *Hylotelephium sieboldii* can retain its foliage into December when it turns a most attractive shade.



## Book Review: The Tian Shan and its flowers.

Pascal Raes.



This magnificent book is written by Vojtěch Holubec (famous for *The Caucasus and its flowers*) and David Horák. The Tian Shan is a mountain area of Central Asia covering parts of China and the former Soviet Union. There are chapters on history of botanic research, orography, geology, climate, vegetation and of course plants. The emphasis is on alpine plants. Each entry gets a description, notes on cultivation and a photo often showing the growing conditions and the surrounding landscape as well. For our interests we have *Orostachys spinosa* and *O. thyrsiflora*, *Hylotelephium ewersii*, *Pseudosedum lievenii* and *P. longidentatum*, *Rosularia alpestris* and *R. platyphylla*, *Rhodiola semenovii*, *R. coccinea*, *R. quadrifida*



Figures 13a,b,c give some idea of the quality of this 2.18kg tome of high quality photographic paper. (€50 plus postage.)

*R. gelida*, *R. recticaulis*, *R. linearifolia*, *R. kirilowii*, *R. kashgarica* and *R. pamiroalaica*, *Sedum hybridum*/*Phedimus hybridus*. 400 pages and countless colour photographs. It's the most beautiful book in my collection. V. Holubec has an interesting seed list of unusual plants as well. He may be contacted at [vojtech.holubec@tiscali.cz](mailto:vojtech.holubec@tiscali.cz) or [www.holubec.wbs.cz](http://www.holubec.wbs.cz).



## Book Review: Illustrated field guide to the Flora of Georgia by Fischer, Gröger & Lobin.

Julian Shaw

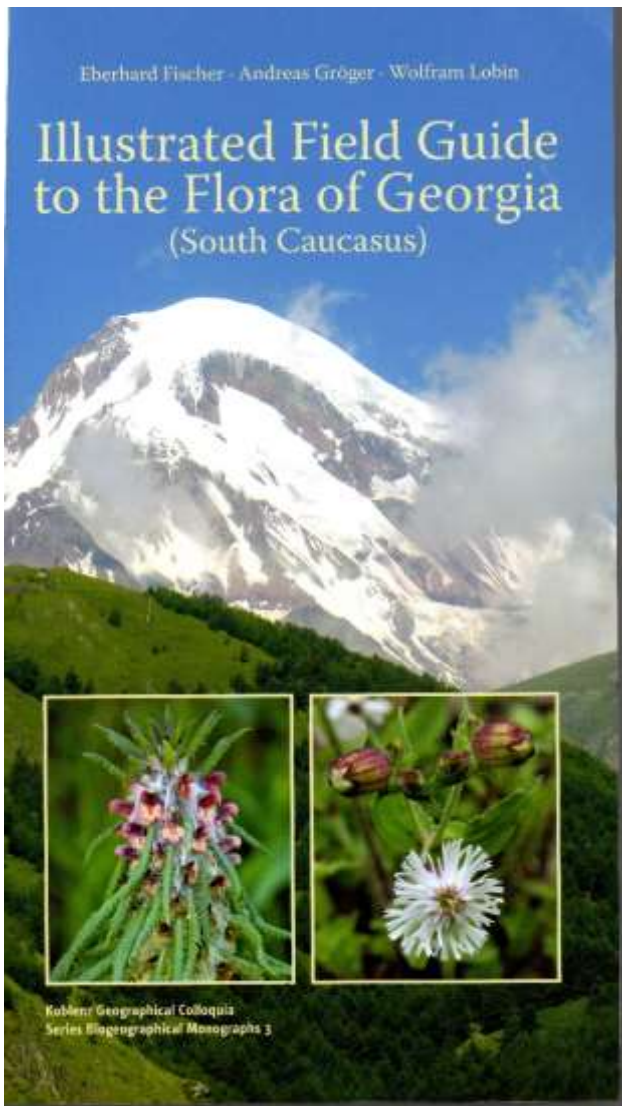


Figure 14. £30 + postage.

The guide usefully covers an area sandwiched between the Davis, 10 volume *Flora of Turkey* (1965-1988) region, and Russia, for which only an English translation of Komarov's 30 volume *Flora of the USSR* (1931-1964) was available to the non-Russian speaker, until this and another useful guide (Shetekauri & Jacoby, *Mountain flowers and trees of Caucasia*, 1ed. 2009\*; 2ed. 2018) have appeared.

In 830 pages, more than 1200 species are illustrated, usually by several photographs each, resulting in coverage of about 30% of the recorded 4130 species from Georgia. It focuses on the Southern Caucasus and has taken over 20 years to compile. The book is designed as a field guide but at 1.24kg one feels its presence, and one suspects the thin card paperback covers will not last in a rucksack. However, it is very well presented, and photographic reproduction is generally crisp.

There is an interesting mixture of taxonomic approaches reflecting the state of a science on the cusp of changes wrought by molecular studies, contrasting with the narrow concepts used in *Flora USSR*. For example, while *Cannabis sativa* is represented by *C. ruderalis*, *Jacobaea* is separated from *Senecio*, and even *Iranecio* makes an appearance. The daisy family is by far the largest component of the Georgian flora with 566 species recorded, 132 of which are endemic. One also encounters familiar garden plants in their home setting, such as *Brunnera macrophylla*.

But what is in it for the Crassulaceae enthusiast? Pages 473-480 depict 14 species. *Prometheum* is represented by *P. pilosum* and the stunning *P. sempervivoides*. *Sedum* is included in a broad sense, *S. acre*, *S. album*, *S. hispanicum*, *S. involucratum*, *S. pallidum*, *S. spurium*, *S. stoloniferum* and *S. tenellum*. *Phedimus* is not mentioned, whereas *Hylotelephium caucasicum* is accepted. *Sempervivum* features

*S. caucasicum*, *S. ermanicum*, *S. pumilum*, and *S. transcaucasicum*.

In a nutshell – a beautifully produced and accurate book which is a visual delight. \*The 1<sup>st</sup> edition included single photos of *Sedum acre*, *hispanicum*, *spurium*, *stevenianum*, *tenellum*, *Sempervivum caucasicum*, *transcaucasicum*, and

*Umbilicus oppositifolius*. *Prometheum pilosum* is represented by two images, one captioned *Sempervivum pumilum*, and the other *Pseudorosularia pilosa*. It's hard to identify the image captioned *Pseudorosularia sempervivoides*, perhaps it is *Sempervivum ermanicum*?

## Greek flora on line (greekflora.gr) – an appraisal.

**Ray Stephenson** makes a critical review of the official site.

Greek flora on line (greekflora.gr) is a worthwhile site but it is somewhat flawed. They have posted 3 photographs purporting to be *Sedum apoleipon*. The first is most definitely *S. urvillei*. The second is mostly *Petrosedum ochroleucum* and the third mostly *Sedum album*. *Sedum acre* has the largest number of photographs. The photographs depicting *S. litoreum* are useful but the single photograph of *S. grisebachii* shows a well-spent plant at a distance at the end of its flowering period, so is less so. Although common in Greece, *S. annuum* is missing altogether. Interestingly a plant of *S. annuum* is shown as *S. urvillei*. *Sedum laconicum* is well depicted but one photograph = *S. litoreum*. Two photographs captioned *Sedum tuberiferum* depict *S. urvillei*. The site includes *S. praesidis* which is the Cretan variety of *S. litoreum*, and *S. alpestre* var. *erythraeum*. *Sedum samium* is a yellow-flowered species but 4 photographs here show a subspecies of *S. eriocarpum* (white flowers). The most flawed section of this group is with the misidentification of *S. urvillei* where one depiction is actually *S. acre*, one is *S. apoleipon* and one is *S. annuum*.

Four subspecies of *Sedum eriocarpum* are depicted well, as is *S. rubens*, *S. album*,

and *S. cepaea*. *Sedum aetnense* is missing. *Sedum tristriatum* is well illustrated. *Sedum magellense*, *S. dasyphyllum* *S. stefco* and *S. caespitosum* are well represented. The photographs of *S. hispanicum* are good. *Sedum creticum*, *S. confertiflorum* and *S. atratum* are very well illustrated.

*Petrosedum ochroleucum* and *P. sediforme* are correctly identified. *Petrosedum amplexicaule* subsp. *tenuifolium* is illustrated well.

*Phedimus stellatus* is well represented, there is a decent set of photos of *Hylotelephium telephium*, and the images of *Prometheum tymphaeum* are good. Oddly 2 of the plants alleging to be *Rosularia serrata* look hirsute and are probably *R. globulariifolium*.

*Sempervivum marmoreum*, and *S. ciliosum* are present but not *S. thompsonianum* or *S. zeileborii*. *Jovibarba heuffelii* is well illustrated. There are maps declaring some sites, but they are far from complete, especially if you plan to visit any of the Greek islands other than Crete. Never-the-less – it is worthwhile visiting this site if you plan a trip to mainland Greece.

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- 81. *Kalanchoe arborescens* – a Madagascan giant, by Colin C. Walker.
- 84. *Sedum* hunting in Montenegro's lowlands, (photographs of a cristate *Petrosedum ochroleucum*, *Sedum dasyphyllum* and *S. cepaea*) by Pascal Raes.
- 86. Research on the name *Sedum hispanicum* L. 1755 var. *eriocarpum* (Guss.) Boiss., by Massimo Afferni.
- 88. *Hylotelephium sieboldii* (*Sedum sieboldii*) – introduction, typification, and cultivars, by Julian Shaw.
- 96. The puzzle of *Hylotelephium sieboldii* solved by Yoko Otsuki.
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- 101. Book Review: The Tian Shan and its flowers, by Pascal Raes.
- 102. Book Review: Illustrated field guide to the Flora of Georgia by Fischer, Gröger & Lobin, by Julian Shaw.
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## Current Notices

With this *Newsletter* we enclose a subscription form which will be marked you have paid in advance if this is so. Historically we are out of sync with payment dates of other societies but issue #131 will be bagged and ready to post by mid-September. Please try to indicate before then if you wish to re-subscribe



